

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before the Licensing Board:

E. Roy Hawkens, Chair
Dr. Michael F. Kennedy
Dr. William C. Burnett

In the Matter of)	
)	
Florida Power & Light Company)	Docket Nos. 52-040 and 52-041
)	
Turkey Point,)	ASLBP No. 10-903-02-COL-BD01
Units 6 and 7)	
_____)	

**JOINT INTERVENORS' RESPONSE TO NRC STAFF'S ANSWER TO FLORIDA
POWER & LIGHT'S MOTION FOR SUMMARY DISPOSITION OF JOINT
INTERVENORS' AMENDED CONTENTION 2.1**

Pursuant to 10 C.F.R. § 2.710, SOUTHERN ALLIANCE FOR CLEAN ENERGY, NATIONAL PARKS CONSERVATION ASSOCIATION, DAN KIPNIS, and MARK ONCAVAGE (collectively, "Joint Intervenors") hereby file their response in opposition to the Nuclear Regulatory Commission ("NRC") Staff's Answer to Florida Power & Light Company's ("FPL") Motion for Summary Disposition of Joint Intervenors' Amended Contention 2.1, filed February 3, 2016 (the "NRC Staff Answer").

Joint Intervenors respectfully submit that NRC Staff fundamentally mischaracterizes previous contamination from deep well injection operations in the region. Contrary to Staff's statement on page 13 of the NRC Staff Answer, upwelling was documented at the South District Wastewater Treatment Plant site north of the Turkey

Point site, and there was an impact to the Upper Floridan aquifer. Quarles First Aff. at ¶¶ 10-24. Indeed, the Idaho National Engineering and Environmental Laboratory (“INEEL”) study, which was cited by Mark Quarles in his First Affidavit and submitted by Joint Intervenors more than four years ago, determined that groundwater in the Upper Floridan Aquifer is contaminated with treated wastewater, implying that contaminants are migrating through the Middle Confining Unit. Idaho National Engineering and Environmental Laboratory, *Evaluation of Confining Layer Integrity Beneath the South District Wastewater Treatment Plant, Miami-Dade Water and Sewer Department, Dade County, Florida*, INEEL/EXT-01-0046 (Feb. 2001) at ¶¶ 38-40 (ML12023A272, Attachment 3). Further, the INEEL study, as well as studies by Wash and Price (2010) and the U.S. Environmental Protection Agency (2003), all discuss the presence of vertical pathways for which migration of treated wastewater into the Upper Floridan aquifer could occur. Quarles First Aff. at ¶¶ 13, 15, 18, 24 (citing INEEL (2001); Walsh, V. and Price, R. *Determination of vertical and horizontal pathways of injected fresh wastewater into a deep saline aquifer (Florida, USA) using natural chemical traces*, Hydrogeology Journal (Feb. 2010); U.S. EPA Office of Water, *Relative Risk Assessment of Management Options for Treated Wastewater in South Florida*, EPA 816-R-03-010 (Apr. 2003)) (ML12023A272, Attachments 2 and 3; ML102300602).

In addition, NRC Staff’s assertions on pages 10 and 12 of the NRC Staff Answer that they do not expect the hydrogeology across the Turkey Point site to vary significantly from what was reported at the single test well (“EW-1”) and that vertical flow features would be absent, is also unfounded and not based on a comprehensive understanding and analysis of the site. The fact that previous well injection sites have already contaminated

the Upper Floridan, and studies including the 2012 Cunningham report referenced by Mark Quarles in his Third Affidavit document the existence of both fractures and faults in the region, underscores the importance of conducting a thorough subsurface investigation at the site before deep well injection begins. Quarles First Aff. at ¶17; Quarles Third Aff. at ¶38; Cunningham, K., Walker, C. Wescott, R. *Near-surface, marine seismic-reflection data define potential hydrogeologic confinement bypass in the carbonate Floridan aquifer system, southeastern Florida*, Society of Exploration Geophysics Annual Meeting, 2012) (ML16034A495). The Cunningham study found that there was “an immediate need for a subsurface assessment because at some wastewater treatment plants fresh wastewater injected by disposal wells into a saline lower part of the Floridan aquifer system has migrated upward into a shallow brackish-water part of the aquifer system called the USDW...A USDW is an underground source of drinking water...The detection of deeply injected wastewater in the USDW in southern Florida represents a risk to public health.” Cunningham, et. al. at 1 (internal citations omitted); *see also*, Quarles Third Aff. at ¶30.

While NRC Staff contends on page 6 of their Answer that the National Environmental Policy Act (“NEPA”) does not demand virtually infinite study and resources and is not intended to be a research document because there will always be more data that could be gathered, NEPA does not permit agencies to rely on conclusory statements unsupported by data, authorities, or explanatory information. *Seattle Audubon Soc’y v. Mosely*, 798 F.Supp. 1473, 1482 (W.D. Wash. 1992). Here, the testing performed by FPL at the EW-1 site as well as the very studies that NRC Staff relies upon to determine that vertical migration is unlikely, do not support the conclusions reached by

the agency. A core requirement of NEPA is that federal agencies “will have available, and will carefully consider, detailed information concerning significant environmental impacts” and that such information “will be made available to the larger [public] audience.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989). A more thorough analysis is required to accurately determine the significance of the environmental impacts associated with injecting wastewater via deep injection into the Boulder zone, to understand the “lessons learned,” (Quarles Third Aff. at ¶41) and prevent similar or even more significant contamination from occurring again in the aquifer. By requiring the NRC to prepare an Environmental Impact Statement that carefully examines this project’s impacts to groundwater, “NEPA ensures that important effects will not be overlooked or under-estimated only to be discovered after resources have been committed or the die otherwise cast.” *Robertson*, at 349.

For the reasons stated above and in Joint Intervenors' Answer filed February 3, 2016, Joint Intervenors respectfully request that FPL's Second Motion for Summary Disposition be denied.

Respectfully submitted this 15th day of February, 2016.

 /signed electronically by/

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